UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,564	08/27/2003	Messay Amerga	020673	8247

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QUALCOMM INCORPORATED
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EXAMINER
SAFAIPOUR, BOBBAK

ART UNIT	PAPER NUMBER
2618	

NOTIFICATION DATE	DELIVERY MODE
12/12/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
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PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>27 August 2008</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-21</u> is/are pending in the application.
  4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-21</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a)☐ All b)☐ Some * c)☐ None of:
   1.☐ Certified copies of the priority documents have been received.
   2.☐ Certified copies of the priority documents have been received in Application No. _____.
   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
  Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s)

of rejection.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or
> composition of matter, or any new and useful improvement thereof, may obtain a patent
> therefor, subject to the conditions and requirements of this title.

Claim 21 is rejected under 35 U.S.C. 101 because the claimed invention is directed to

non-statutory subject matter. The language of the claim raises a question as to whether the claim

is directed merely to an abstract idea that is not tied to a technological art, environment or

machine which would result in a practical application producing a concrete, useful, and tangible

result to form the basis of statutory matter under 35 USC 101.

Although support is shown in the specification, which discloses that "a software module

may reside in RAM memory, flash memory, ROM memory, EPROM memory, EEPROM

memory, registers, hard disk, a removable disk, a CD-ROM, or any other form of storage

medium known in the art" (paragraph 77), claim 21 is completely silent where the software

module may reside. As a result, claim 21 is rejection under 35 U.S.C. 101. Appropriate

correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Amerga et**

al (hereinafter "Amerga"; US 2003/0231605) in view of **Bamburak et al. (US 2004/0219915**

A1; hereinafter Bamburak).

Consider **claim 1**, Amerga discloses an apparatus, comprising: a search scheduler for

scheduling a search (figure 4; paragraph 36; frequency scan using a full search of all frequencies)

based at least in part on a serving cell transceiving gap defined for searching outside of a serving

cell. (figure 4; paragraphs 36-38; the existence or location of neighboring systems can be

communicated to the mobile station from the located system)

Amerga fails to specifically disclose generating a frequency switch blocking signal to

override opening the serving cell transceiving gap for searching outside of the serving cell and a

frequency controller for generating frequency switch commands, receiving the frequency switch

blocking signal, and suppressing the generation of frequency switch commands when the frequency switch blocking signal is asserted.

In related art, Bamburak discloses generating a frequency switch blocking signal to override opening the serving cell transceiving gap for searching outside of the serving cell (read as undesirable or prohibited SOC(s) or SID(s) or if the user enters an override command) and a frequency controller for generating frequency switch commands, receiving the frequency switch blocking signal, and suppressing the generation of frequency switch commands when the frequency switch blocking signal is asserted. (paragraph 27; figure 5 and paragraph 33; figure 9; A search schedule is downloaded using a master search schedule. When downloading the search schedule, frequency bands previously searched are removed from the downloaded schedule to avoid searching bands that have already been searched.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Bamburak into the teachings of Amerga to locate a preferable wireless service provider in a multi service provider environment using a frequency band search schedule.

Consider **claim 13**, Amerga discloses a first Integrated Circuit (IC), responsive to a frequency switch signal generated in a second IC, the second IC comprising: a search scheduler (figure 4; paragraph 36; frequency scan using a full search of all frequencies) for scheduling a search based at least in part on a serving cell transceiving gap defined for searching outside of a serving cell (figure 4; paragraphs 36-38; the existence or location of neighboring systems can be communicated to the mobile station from the located system) and a first IC comprising: a

frequency synthesizer to receive the frequency switch signal from the second IC and to generate

an output signal, the frequency of the output signal changing from a first frequency to a second

frequency in response to the frequency switch signal (paragraphs 30-39).

Amerga fails to specifically disclose generating a frequency switch blocking signal to

override opening the serving cell transceiving gap for searching outside of the serving cell and a

frequency controller for generating frequency switch commands, receiving the frequency switch

blocking signal, and suppressing the generation of frequency switch commands when the

frequency switch blocking signal is asserted.

In related art, Bamburak discloses generating a frequency switch blocking signal to

override opening the serving cell transceiving gap for searching outside of the serving cell (read

as undesirable or prohibited SOC(s) or SID(s) or if the user enters an override command) and a

frequency controller for generating frequency switch commands, receiving the frequency switch

blocking signal, and suppressing the generation of frequency switch commands when the

frequency switch blocking signal is asserted. (paragraph 27; figure 5 and paragraph 33; figure 9;

A search schedule is downloaded using a master search schedule. When downloading the search

schedule, frequency bands previously searched are removed from the downloaded schedule to

avoid searching bands that have already been searched.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to incorporate the teachings of Bamburak into the teachings of Amerga to locate a

preferable wireless service provider in a multi service provider environment using a frequency

band search schedule.

Consider **claim 14**, Amerga discloses a wireless communication device, comprising: a

search scheduler for scheduling a search (figure 4; paragraph 36; frequency scan using a full

search of all frequencies) based at least in part on a serving cell transceiving gap defined for

searching outside of a serving cell. (figure 4; paragraphs 36-38; the existence or location of

neighboring systems can be communicated to the mobile station from the located system)

Amerga fails to specifically disclose generating a frequency switch blocking signal to

override opening the serving cell transceiving gap for searching outside of the serving cell and a

frequency controller for generating frequency switch commands, receiving the frequency switch

blocking signal, and suppressing the generation of frequency switch commands when the

frequency switch blocking signal is asserted.

In related art, Bamburak discloses generating a frequency switch blocking signal to

override opening the serving cell transceiving gap for searching outside of the serving cell (read

as undesirable or prohibited SOC(s) or SID(s) or if the user enters an override command) and a

frequency controller for generating frequency switch commands, receiving the frequency switch

blocking signal, and suppressing the generation of frequency switch commands when the

frequency switch blocking signal is asserted. (paragraph 27; figure 5 and paragraph 33; figure 9;

A search schedule is downloaded using a master search schedule. When downloading the search

schedule, frequency bands previously searched are removed from the downloaded schedule to

avoid searching bands that have already been searched.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to incorporate the teachings of Bamburak into the teachings of Amerga to locate a

preferable wireless service provider in a multi service provider environment using a frequency

band search schedule.

Consider **claim 17**, Amerga discloses a method of searching in the presence of frequency

gaps, comprising: a search scheduler (figure 4; paragraph 36; frequency scan using a full search

of all frequencies) for scheduling a search based at least in part on a serving cell transceiving gap

defined for searching outside of a serving cell. (figure 4; paragraphs 36-38; the existence or

location of neighboring systems can be communicated to the mobile station from the located

system)

Amerga fails to specifically disclose suppressing the generation of frequency switch

during the scheduled search to override opening the serving cell transceiving gap for searching

outside of the serving cell.

In related art, Bamburak discloses suppressing the generation of frequency switch during

the scheduled search to override opening the serving cell transceiving gap for searching outside

of the serving cell. (paragraph 27; figure 5 and paragraph 33; figure 9; A search schedule is

downloaded using a master search schedule. When downloading the search schedule, frequency

bands previously searched are removed from the downloaded schedule to avoid searching bands

that have already been searched.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to incorporate the teachings of Bamburak into the teachings of Amerga to locate a

preferable wireless service provider in a multi service provider environment using a frequency

band search schedule.

Consider **claim 20**, Amerga discloses an apparatus, comprising: means for scheduling a

search (figure 4; paragraph 36; frequency scan using a full search of all frequencies) based at

least in part on a serving cell transceiving gap defined for searching outside of a serving cell.

(figure 4; paragraphs 36-38; the existence or location of neighboring systems can be

communicated to the mobile station from the located system)

Amerga fails to specifically disclose means for suppressing the generation of frequency

switch during the scheduled search to override opening the serving cell transceiving gap for

searching outside of the serving cell.

In related art, Bamburak discloses means for suppressing the generation of frequency

switch during the scheduled search to override opening the serving cell transceiving gap for

searching outside of the serving cell. (paragraph 27; figure 5 and paragraph 33; figure 9; A

search schedule is downloaded using a master search schedule. When downloading the search

schedule, frequency bands previously searched are removed from the downloaded schedule to

avoid searching bands that have already been searched.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to incorporate the teachings of Bamburak into the teachings of Amerga to locate a

preferable wireless service provider in a multi service provider environment using a frequency

band search schedule.

Consider **claim 21**, Amerga discloses processor readable media encoded with software

operable to perform the following steps: scheduling a search (figure 4; paragraph 36; frequency

scan using a full search of all frequencies) based at least in part on a serving cell transceiving gap

defined for searching outside of a serving cell. (figure 4; paragraphs 36-38; the existence or

location of neighboring systems can be communicated to the mobile station from the located

system)

Amerga fails to specifically disclose suppressing the generation of frequency switch

during the scheduled search to override opening the serving cell transceiving gap for searching

outside of the serving cell.

In related art, Bamburak discloses suppressing the generation of frequency switch during

the scheduled search to override opening the serving cell transceiving gap for searching outside

of the serving cell. (paragraph 27; figure 5 and paragraph 33; figure 9; A search schedule is

downloaded using a master search schedule. When downloading the search schedule, frequency

bands previously searched are removed from the downloaded schedule to avoid searching bands

that have already been searched.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to incorporate the teachings of Bamburak into the teachings of Amerga to locate a

preferable wireless service provider in a multi service provider environment using a frequency

band search schedule.

Consider **claim 2**, and **as applied to claim 1 above**, Amerga, as modified by Steudle,

discloses the claimed invention wherein a gap manager for indicating when a frequency switch is

to occur, and wherein the search scheduler schedules the search during a period of time without a

frequency switch as indicated by the gap manager. (Bamburak: paragraph 27; figure 4 and paragraph 33; figure 9)

Consider **claim 3**, and **as applied to claim 1 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the search scheduler comprises a timer, the expiration of which indicates a search is to be scheduled. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 4**, and **as applied to claim 3 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the search scheduler schedules a search without asserting the frequency switch blocking signal prior to the timer expiration. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 5**, and **as applied to claim 3 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the timer resets upon the completion of a scheduled search. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39; performing searches at new frequencies)

Consider **claim 6**, and **as applied to claim 3 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the search scheduler schedules a search and asserts the frequency switch blocking signal subsequent to the timer expiration. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 7**, and **as applied to claim 1 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the search scheduler asserts the frequency switch blocking signal during the scheduled search. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 8**, and **as applied to claim 2 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the search scheduler schedules a plurality of search types. (abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 9**, and **as applied to claim 81 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the search scheduler schedules one or more of the plurality of search types (Amerga: abstract; figures 2, 4-9; paragraphs 36-39) in response to the frequency switch indicator received from the gap manager. (Bamburak: paragraph 27; figure 4 and paragraph 33; figure 9)

Consider **claim 10**, and **as applied to claim 8 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the search scheduler comprises a plurality of timers corresponding to one or more of the plurality of search types, the expiration of each timer indicating a search of the respective search type is to be scheduled. (abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 11**, and **as applied to claim 10 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the search scheduler schedules a search corresponding to one of the plurality of search types and asserts the frequency switch blocking signal subsequent to the respective timer expiration. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 12**, and **as applied to claim 8 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the plurality of search types comprises one or more of a list search, a W-CDMA step one search, or a W-CDMA step two search (Amerga: abstract)

Consider **claim 15**, and **as applied to claim 14 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein frequency synthesizer to receive the frequency switch commands and to generate an output signal, the frequency of the output signal changing from a first frequency to a second frequency in response to the frequency switch commands. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 16**, and **as applied to claim 14 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein a searcher for searching in accordance with the scheduled search and for indicating to the search scheduler when the scheduled search is complete. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 18**, and **as applied to claim 17 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein determining future frequency switches; and wherein the

search is scheduled during a time period in which no future frequency switches are determined.

(Amerga: abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 19**, and **as applied to claim 18 above**, Amerga, as modified by Steudle,

discloses the claimed invention wherein timing the duration between searches; and scheduling

searches without suppressing frequency switches prior to the timed duration reaching a pre-

determined maximum. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39)

Conclusion

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to**:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Bobbak Safaipour whose telephone number is (571) 270-1092.

The Examiner can normally be reached on Monday-Friday from 9:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the

organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-

3028.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist/customer service whose telephone number is (571) 272-

2600.

/Bobbak Safaipour/
Examiner, Art Unit 2618

December 5, 2008

/Matthew D. Anderson/

Supervisory Patent Examiner, Art Unit 2618